

Appendix II

Alignment of instant SEQ ID NO: 1 with SEQ ID NO: 1479 of Tang et al.

<!--StartFragment-->RESULT 2

AAM78817

ID AAM78817 standard; protein; 956 AA.

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AC AAM78817;

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DT 06-NOV-2001 (first entry)

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DE Human protein SEQ ID NO 1479.

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KW Human; cytokine; cell proliferation; cell differentiation; gene therapy;

KW vaccine; peptide therapy; stem cell growth factor; haematopoiesis;

KW tissue growth factor; immunomodulatory; cancer; leukaemia;

KW nervous system disorder; arthritis; inflammation.

XX

OS Homo sapiens.

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PN WO200157190-A2.

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PD 09-AUG-2001.

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PF 05-FEB-2001; 2001WO-US004098.

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PR 03-FEB-2000; 2000US-00496914.

PR 27-APR-2000; 2000US-00560875.

PR 20-JUN-2000; 2000US-00598075.

PR 19-JUL-2000; 2000US-00620325.

PR 01-SEP-2000; 2000US-00654936.

PR 15-SEP-2000; 2000US-00663561.

PR 20-OCT-2000; 2000US-00693325.

PR 30-NOV-2000; 2000US-00728422.

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PA (HYSE-) HYSEQ INC.

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PI Tang YT, Liu C, Drmanac RT, Asundi V, Zhou P, Xu C, Cao Y;

PI Ma Y, Zhao QA, Wang D, Wang J, Zhang J, Ren F, Chen R, Wang ZW;

PI Xue AJ, Yang Y, Wejhrman T, Goodrich R;

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DR WPI; 2001-476283/51.

DR N-PSDB; AAK51950.

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PT Nucleic acids encoding polypeptides with cytokine-like activities, useful
PT in diagnosis and gene therapy.

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PS Claim 20; Page 3755-3757; 6221pp; English.

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CC The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC encoded polypeptides (AAM78323-AAM80302) that exhibit activity relating to
CC cytokine, cell proliferation or cell differentiation or which may induce
CC production of other cytokines in other cell populations. The
CC polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC peptide therapy. The polypeptides have various cytokine-like activities,
CC e.g. stem cell growth factor activity, haematopoiesis regulating
CC activity, tissue growth factor activity, immunomodulatory activity and
CC activin/inhibin activity and may be useful in the diagnosis and/or
CC treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111
CC (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the
CC sequence listing were missing at the time of publication

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SQ Sequence 956 AA;

Query Match 99.9%; Score 4990; DB 4; Length 956;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 955; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MASKRKSTTPCMIPVKTIVLQDASMEAQPAETLPEGPQQDLPPEASAASSEAAQNPSSTD	60
Db	1	MASKRKSTTPCMIPVKTIVLQDASMEAQPAETLPEGPQQDLPPEASAASSEAAQNPSSTD	60
Qy	61	GSTLANGHRSTLDGYLYSCKYCDFRSHDMTQFVGHMNSEHTDFNKDPTFVCSGC SFLAKT	120
Db	61	GSTLANGHRSTLDGYLYSCKYCDFRSHDMTQFVGHMNSEHTDFNKDPTFVCSGC SFLAKT	120
Qy	121	PEGLSLHNATCHSGEASFVWNVAKPDNHVVVEQSIPESTSTPDLAGEPSAEGADGQAEII	180
Db	121	PEGLSLHNATCHSGEASFVWNVAKPDNHVVVEQSIPESTSTPDLAGEPSAEGADGQAEII	180
Qy	181	ITKTPIMKIMKGKAEAKKIHTLKENVPSQPVGEALPKLSTGEMEVREGDHSFINGAVPVS	240
Db	181	ITKTPIMKIMKGKAEAKKIHTLKENVPSQPVGEALPKLSTGEMEVREGDHSFINGAVPVS	240
Qy	241	QASASSAKNPHAANGPLIGTVPLPAGIAQFLSLQQQPPVHAQHVVHQLPTAKALPKVM	300
Db	241	QASASSAKNPHAANGPLIGTVPLPAGIAQFLSLQQQPPVHAQHVVHQLPTAKALPKVM	300
Qy	301	IPLSSIPTYNAAMDSNSFLKNSFHKFPYPTKAELCYLTVVTKYPEEQLKIWFTAQRLKQG	360
		:	
Db	301	IPLSSIPTYSAAMDSNSFLKNSFHKFPYPTKAELCYLTVVTKYPEEQLKIWFTAQRLKQG	360
Qy	361	ISWSPEEIEDARKKMFNTVIQSVQPTITVLNTPLVASAGNVQHLIQAALPGHVVGQPEG	420
Db	361	ISWSPEEIEDARKKMFNTVIQSVQPTITVLNTPLVASAGNVQHLIQAALPGHVVGQPEG	420
Qy	421	TGGGLLVQTQPLMANGLOATSSPLPLTVTSVPKQPGVAPINTVCSNTTSAVKVVNAAQSLL	480
Db	421	TGGGLLVQTQPLMANGLOATSSPLPLTVTSVPKQPGVAPINTVCSNTTSAVKVVNAAQSLL	480
Qy	481	TACPSITSQAFLDASIYKNKKSHEQLSALKGSFCRNQFPGQSEVEHLTKVTGLSTREVRK	540
Db	481	TACPSITSQAFLDASIYKNKKSHEQLSALKGSFCRNQFPGQSEVEHLTKVTGLSTREVRK	540
Qy	541	WFSDDRYHCRNLKGS RAMIPGDHSSIIIDSVPEVSFSPSSKVPEVTCIPTTATLATHPSA	600
Db	541	WFSDDRYHCRNLKGS RAMIPGDHSSIIIDSVPEVSFSPSSKVPEVTCIPTTATLATHPSA	600
Qy	601	KRQSWHQTPDFTPTKYKERAPEQLRALESSFAQNPLPLDEELDRLRSETKMTRREIDSWF	660
Db	601	KRQSWHQTPDFTPTKYKERAPEQLRALESSFAQNPLPLDEELDRLRSETKMTRREIDSWF	660
Qy	661	SERRKKVNAEETKKAENASQEEEEAAEDEGGEE DLASELRVSGENG SLEMPSSHILAER	720
Db	661	SERRKKVNAEETKKAENASQEEEEAAEDEGGEE DLASELRVSGENG SLEMPSSHILAER	720
Qy	721	KVSPIKINLKNLRVTEANGRNEIPGLGACDPEDDES NKLAEQ L PGKV SCKKTAQQRHLLR	780
Db	721	KVSPIKINLKNLRVTEANGRNEIPGLGACDPEDDES NKLAEQ L PGKV SCKKTAQQRHLLR	780
Qy	781	QLFVQTQWPSNQDYDSIMAQTGLPRPEVVRFWFGDSRYALKNGQLKWYEDYKRGNFPPGLL	840
Db	781	QLFVQTQWPSNQDYDSIMAQTGLPRPEVVRFWFGDSRYALKNGQLKWYEDYKRGNFPPGLL	840

Qy	841	VIAPGNRELLQDY YMTHKMLY EEDLQNLCDKTQMSSQQVKQWFAEKMGEETRAVADTGSE	900
Db	841	VIAPGNRELLQDY YMTHKMLY EEDLQNLCDKTQMSSQQVKQWFAEKMGEETRAVADTGSE	900
Qy	901	DQGPGTGELTAVHKMGMDTYSEVSENSESWEPRVPEASSEPFDTSSPQAGRQLETD	956
Db	901	DQGPGTGELTAVHKMGMDTYSEVSENSESWEPRVPEASSEPFDTSSPQAGRQLETD	956

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